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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative A.urb

Project Name:

Project Location:

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2 Mountain Counties and Rural Counties

# SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES	5				5410
PM10 PM10 *** 2006 ***	ROG	NOX	со	so2	PM10 TOTAL
TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					- vad 0
PM10 PM10					PM10
*** 2007 *** EXHAUST DUST	ROG	NOx	CO	SO2	TOTAL
TOTALS (1bs/day,unmitigated) 4.43 0.19	37.76	111.79	136.10	0.00	4.62
AREA SOURCE EMISSION ESTIMATES	ROG	NOX	CO	S02	PM10
TOTALS (lbs/day,unmitigated)	7.81	1.15	1.21	0.00	0.00
OPERATIONAL (VEHICLE) EMISSION	FSTTMATES				
OF EIGHT (VEHICLE) EMISSION	ROG	NOx	co	S02	PM10
TOTALS (lbs/day,unmitigated)	12.27	21.79	158.42	0.10	17.31
SUM OF AREA AND OPERATIONAL EM	SSTON FST	TMATES			
man war it was a financial of the same was a man to the same same same same same same same sam	ROG	NOX	СО	SO2	PM10
TOTALS (lbs/day,unmitigated)	20.07	22.94	159.63	0.10	17.31

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version

8.7\Projects2k2\Alternative A.urb Project Name: A Project Location: M

Alternative A

Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES	5				D441.0
PM10 PM10 *** 2006 ***	ROG	NOX	CO	so2	PM10 TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					PM10
PM10 PM10 *** 2007 *** EXHAUST DUST	ROG	NOx	со	so2	TOTAL
TOTALS (lbs/day,unmitigated) 4.43 0.19	37.76	111.79	136.10	0.00	4.62
AREA SOURCE EMISSION ESTIMATES	ROG	NOX	со	SO2	PM10
TOTALS (lbs/day,unmitigated)	7.75	1.99	0.85	0.01	0.07
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOx	CO	S02	PM1.0
TOTALS (lbs/day,unmitigated)	15.49	26.14	186.55	0.10	17.31
SUM OF AREA AND OPERATIONAL EMI		MATES		_	
TOTALS (lbs/day,unmitigated)	ROG 23.24	NOX 28.13	CO 187.39	SO2 0.10	PM10 17.38

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name: 8.7\Projects2k2\Alternative A.urb

Project Name: Alternative A

Project Location: Mountain Counties and Rural Counties On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

### DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: May, 2006

Construction Duration: 15
Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 152 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day) Page 2

	Alterr	native A Ou	tput			
PM10					PM10	PM10
Source EXHAUST DUST *** 2006***	ROG	NOX	СО	SO2	TOTAL	
Phase 1 - Demolition Emissions Fugitive Dust	5 _	_	_	-	0.00	
- 0.00 Off-Road Diesel 0.00 0.00	0.00	0.00	0.00	•••	0.00	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emissic Fugitive Dust	ons -				30.00	
- 30.00 Off-Road Diesel 5.27 0.00	18.64	127.87	148.05		5.27	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.01 0.01	0.18	0.37	4.07	0.00	0.02	
Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
Phase 3 - Building Construction Bldg Const Off-Road Diesel 3.62 0.00	on 10.88	81.56	81.47	_	3.62	
3.62 0.00 Bldg Const Worker Trips 0.00 0.09	0.36	0.22	4.55	0.00	0.09	
Arch Coatings Off-Gas	0.00		-	-	-	
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Asphalt Off-Gas	0.00	-	_		-	
Asphalt Off-Road Diesel	0.00	0.00	0.00	244	0.00	
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum İbs/day 3.63 0.09	11.23	81.78	86.02	0.00	3.72	
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
*** 2007***  Phase 1 - Demolition Emissions  Fugitive Dust  - 0.00	5	-	_	-	0.00	
Off-Road Diesel	0.00	0.00	0.00	····	0.00	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
		F ancq				

	Altern	ative A Ou	ıtput		
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi	ons				
Fugitive Dust - 0.00	-	_	`		0.00
off-Road Diesel 0.00 0.00	0.00	0.00	0.00	***	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Constructi	on				
Bldg Const Off-Road Diesel 3.30 0.00	10.88	78.23	83.69		3.30
Bldg Const Worker Trips 0.00 0.09	0.33	0.20	4.28	0.00	0.09
Arch Coatings Off-Gas	20.61			-	-
Arch Coatings Worker Trips 0.00 0.09	0.32	0.17	3.61	0.00	0.09
Asphalt Off-Gas	0.28	_			
Asphalt Off-Road Diesel	5.25	31.62	44.62	-	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips 0.00 0.01	0.02	0.01	0.26	0.00	0.01
Maximum lbs/day 4.43 0.19	37.76	111.79	136.10	0.00	4.62
Max lbs/day all phases 4.43 0.19	37.76	111.79	136.10	0.00	4.62

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Туре	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1.	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions
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Start Month/Year for Phase 3: Sep '06

Phase 3 Duration: 11.0 months

Start Month/Year for SubPhase Building: Sep '06 SubPhase Building Duration: 10.2 months Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07 SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months Acres to be Paved: 1.9 Off-Road Equipment

011 1000	to Equipment			
No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5

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AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmit	igated)	
Source	ROG	NOX	CO	502	PM10
Natural Gas	0.09	1.15	0.49	0	0.00
Hearth	0.05	0.84	0.36	0.01	0.07
Landscaping - No winter emissi	ons				
Consumer Prdcts	7.44			***	
Architectural Coatings	0.17		_		
TOTALS(lbs/day,unmitigated)	7.75	1.99	0.85	0.01	0.07

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#### UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	SO2	PM10
	15.49	26.14	186.55	0.10	17.31
TOTAL EMISSIONS (lbs/day)	15.49	26.14	186.55	0.10	17.31

Does not include correction for passby trips. Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	7.00 trips/dwelling unit	152.00	1,064.00
		Sum of Total Ti Total Vehicle Miles Trave	rips eled	1,064.00 11,367.88

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lb	s 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,75	0 16.10	1.90	96.90	1.20
Med Truck 5,751-8,50		1.40	95.80	2.80
Lite-Heavy 8,501-10,00	0 1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,00	0 0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,00		0.00	20.00	80.00
Heavy-Heavy 33,001-60,00	0 0.90	0.00	11.10	88.90
Line Haul > 60,000 1b	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

Traver Conditions	Residential		Commercial			
	Home-	Home-	Home-	Commutes	Non Honk	Cuctomon
	Work	Shop	Other	Commute	MOU-MOUK	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/9.5 to 7.00/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0.
The wood fireplace percentage changed from 10 to 0.
The natural gas fireplace percentage changed from 55 to 100.
The landscape year changed from 2005 to 2007.
The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

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The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to The operational summer selection item changed from 4 to The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version

8.7\Projects2k2\Alternative A.urb

Alternative A Project Name:

Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: May, 2006

Construction Duration: 15
Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 152

Retail/Office/Institutional/Industrial Square Footage: 0

# CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

PM10					PMTO	PMTO
Source EXHAUST DUST *** 2006***	ROG	NOX	CO	S02	TOTAL	
Phase 1 - Demolition Emission Fugitive Dust - 0.00	ns -	***		-	0.00	
Off-Road Diesel	0.00	0.00	0.00	***	0.00	
0.00 0.00 On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00 0.00 Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emissi	ions					
Fugitive Dust - 30.00					30.00	
off-Road Diesel 5.27 0.00	18.64	127.87	148.05	-	5.27	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
		Dago 7				

DM10

DMIA

Worker Trips	Altern 0.18	ative A Ou 0.37	tput 4.07	0.00	0.02
0.01 0.01 Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29
Phase 3 - Building Constructi					
Bldg Const Off-Road Diesel 3.62 0.00	10.88	81.56	81.47		3.62
Bldg Const Worker Trips 0.00 0.09	0.36	0.22	4.55	0.00	0.09
Arch Coatings Off-Gas	0.00		-	MALE .	-
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00		no-		-
Asphalt Off-Road Diesel	0.00	0.00	0.00		0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 3.63 0.09	11.23	81.78	86.02	0.00	3.72
Max 1bs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29
*** 2007***					
Phase 1 - Demolition Emission	ıs				
Fugitive Dust - 0.00	-		-	wa.	0.00
Off-Road Diesel	0.00	0.00	0.00		0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi	ons				
Fugitive Dust	<del></del>	<del></del>	-	-	0.00
Off-Road Diesel	0.00	0.00	0.00		0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Constructi Bldg Const Off-Road Diesel	on 10.88	78.23	83.69	yee	3.30
3.30 0.00 Bldg Const Worker Trips	0.33	0.20	4.28	0.00	0.09
0.00 0.09 Arch Coatings Off-Gas	20.61	-	-		-
Arch Coatings Worker Trips	0.32	0.17	3.61	0.00	0.09
0.00 0.09		Bago 9			

	Altern	ative A Ou	itput		
Asphalt Off-Gas	0.28	-	-	-	
Asphalt Off-Road Diesel	5.25	31.62	44.62	_	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips 0.00 0.01	0.02	0.01	0.26	0.00	0.01
Maximum lbs/day 4.43 0.19	37.76	111.79	136.10	0.00	4.62
Max lbs/day all phases 4.43 0.19	37.76	111.79	136.10	0.00	4.62

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months

On-Road Truck Travel (VMT): 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Sep '06 Phase 3 Duration: 11.0 months Start Month/Year for SubPhase Building: Sep '06 SubPhase Building Duration: 10.2 months

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Dav
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terráin Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07 SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months

Acres to be Paved: 1.9
Off-Road Equipment

UTT-KO	ad Equipment			
No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5

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AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmi	tigated)	
Source	ROG	NOX	CO	S02	PM10
Natural Gas	0.09	1.15	0.49	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	7.44				
Architectural Coatings	0.17				
TOTALS(lbs/day,unmitigated)	7.81	1.15	1.21	0.00	0.00

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## UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	502	PM10
	12.27	21.79	158.42	0.10	17.31
TOTAL EMISSIONS (lbs/day)	12.27	21.79	158.42	0.10	17.31

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	Units	Trips
Apartments low rise	12.20	7.00 trips/dwelling unit	152.00	1,064.00
		Sum of Total T Total Vehicle Miles Trav	rips eled	1,064.00

# Vehicle Assumptions:

### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel			
Light Auto	55.20	1.80	97.80	0.40			
Light Truck < 3,750 lb	s 15.10	3.30	94.00	2.70			
Light Truck 3,751- 5,75	0 16.10	1.90	96.90	1.20			
Med Truck 5,751-8,50		1.40	95.80	2.80			
Lite-Heavy 8,501-10,00	0 1.10	0.00	81.80	18.20			
Lite-Heavy 10,001-14,00	0 0.40	0.00	50.00	50.00			
Med-Heavy 14,001-33,00	0 1.00	0.00	20.00	80.00			
Heavy-Heavy 33,001-60,00	0 0.90	0.00	11.10	88.90			
Line Haul > 60,000 lb	s 0.00	0.00	0.00	100.00			
Page 10							

Alternative A Output							
Urban Bus	0.10	0.00	0.00	100.00			
Motorcycle	1.70	82.40	17.60	0.00			
School Bus	0.10	0.00	0.00	100.00			
Motor Home	1.20	8.30	83.30	8.40			

Travel Conditions

	Residential			Commercial		
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/9.5 to 7.00/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0.

The wood fireplace percentage changed from 10 to 0.

The natural gas fireplace percentage changed from 55 to 100.

The landscape year changed from 2005 to 2007.

The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative B.urb

Alternative B

Project Name: Project Location: Project Location: Mountain Counties and Rural Counties On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES					
PM10 PM10 *** 2006 *** EXHAUST DUST	ROG	NOX	со	so2	PM10 TOTAL
TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
PM10 PM10					PM10
*** 2007 ***	ROG	NOX	CO	so2	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 4.43 0.15	34.96	111.74	135.15	0.00	4.58
AREA SOURCE EMISSION ESTIMATES				2	
TOTALS (lbs/day,unmitigated)	ROG 6.79	NOX 1.00	CO 1.14	SO2 0.00	PM10 0.00
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOX	со	SO2	PM10
TOTALS (lbs/day,unmitigated)	10.88	19.33	140.52	0.09	15.35
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES			
TOTALS (lbs/day,unmitigated)	ROG 17.67	NOX 20.33	CO 141.67	so2 0.09	PM10 15.35

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### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative B.urb Project Name: A Project Location: MC Alternative B

Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

## SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES					DM10
PM10 PM10 *** 2006 *** EXHAUST DUST	ROG	NOx	СО	so2	PM10 TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					РМ10
PM10 PM10 *** 2007 ***	ROG	NOx	со	so2	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 4.43 0.15	34.96	111.74	135.15	0.00	4.58
AREA SOURCE EMISSION ESTIMATES					
TOTALS (lbs/day,unmitigated)	ROG 6.73	NOX 1.73	CO 0.73	SO2 0.00	PM10 0.06
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOx	со	so2	PM10
TOTALS (lbs/day,unmitigated)	13.74	23.19	165.47	0.09	15.35
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES			
TOTALS (lbs/day,unmitigated)	ROG 20.47	NOX 24.91	CO 166.21	SO2 0.09	PM10 15.41

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative B.urb

Project Name: Alternative B

Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

### DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: May, 2006 Construction Duration: 15 Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 132 Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

АΊ	te	rna	ati	ve	В	Outp	ut
----	----	-----	-----	----	---	------	----

m. 10					PM10	PM10
PM10 Source EXHAUST DUST *** 2006***	ROG	NOX	со	so2	TOTAL	
*** 2006*** Phase 1 - Demolition Emission	c					
Fugitive Dust - 0.00	<b>&gt;</b> 			ست	0.00	
Off-Road Diesel 0.00 0.00	0.00	0.00	0.00	_	0.00	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emissic Fugitive Dust	ons				20.00	
- 30.00 Off-Road Diesel	18.64	127.87	148.05		30.00	
5.27 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	5.27	
0.00 0.00					0.00	
Worker Trips 0.01 0.01	0.18	0.37	4.07	0.00	0.02	
Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
Phase 3 - Building Construction	on:	01 50	01 47		2 62	
Bldg Const Off-Road Diesel			81.47	•••	3.62	
Bldg Const Worker Trips 0.00 0.07	0.31	0.19	3.95	0.00	0.07	
Arch Coatings Off-Gas	0.00	-		-		
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Asphalt Off-Gas	0.00	-	MANN	_	-	
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 3.63 0.07	11.19	81.75	85.42	0.00	3.70	
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
*** 2007***						
Phase 1 - Demolition Emissions Fugitive Dust	-	-		_	0.00	
- 0.00 Off-Road Diesel 0.00 0.00	0.00	0.00	0.00	-	0.00	
0.00 0.00 On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
0.00		- · · · · · · · · ·				

	Altern	ative B Ou	tput		
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emiss Fugitive Dust	ions -				0.00
- 0.00					
Off-Road Diesel 0.00 0.00	0.00	0.00	0.00	<u></u>	0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construct	ion				
Bldg Const Off-Road Diesel	10.88	78.23	83.69	-	3.30
Bldg Const Worker Trips 0.00 0.07	0.29	0.18	3.71	0.00	0.07
Arch Coatings Off-Gas	17.90		-	-	-
Arch Coatings Worker Trips 0.00 0.07	0.27	0.14	3.13	0.00	0.07
Asphalt Off-Gas	0.28	_		••••	
Asphalt Off-Road Diesel	5.25	31.62	44.62	<del></del>	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips	0.02	0.01	0.26	0.00	0.01
0.00 0.01 Maximum lbs/day 4.43 0.15	34.96	111.74	135.15	0.00	4.58
Max lbs/day all phases 4.43 0.15	34.96	111.74	135.15	0.00	4.58

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions
Page 4

Start Month/Year for Phase 3: Sep '06

Phase 3 Duration: 11.0 months

Start Month/Year for SubPhase Building: Sep '06

SubPhase Building Duration: 10.2 months Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terráin Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07 SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months Acres to be Paved: 1.9 Off-Road Equipment

OH - KO	au Eguspilicist			
No.	Туре	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5

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AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmit	:igated)	
Source	ROG	NOX	СО	SO2	PM10
Natural Gas	0.08	1.00	0.42	0	0.00
Hearth	0.04	0.73	0.31	0.00	0.06
Landscaping - No winter emiss	ions				
Consumer Prdcts	6.46			_	
Architectural Coatings	0.15	_	_	_	
TOTALS(lbs/day,unmitigated)	6.73	1.73	0.73	0.00	0.06

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#### UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	SO2	PM10
	13.74	23.19	165.47	0.09	15.35
TOTAL EMISSIONS (1bs/dav)	13.74	23.19	165.47	0.09	15.35

Does not include correction for passby trips. Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

# Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	7.15 trips/dwelling unit	132.00	943.80
		Sum of Total Ti Total Vehicle Miles Trave	rips eled 1	943.80 0,083.65

### Vehicle Assumptions:

#### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs		3.30	94.00	2.70
Light Truck 3,751- 5,750		1.90	96.90	1.20
Med Truck 5,751-8,500		1.40	95.80	2.80
Lite-Heavy 8,501-10,000		0.00	81.80	18.20
Lite-Heavy 10,001-14,000		0.00	50.00	50.00
Med-Heavy 14,001-33,000		0.00	20.00	80.00
Heavy-Heavy 33,001-60,000		0.00	11.10	88.90
Line Haul > 60,000 1bs		0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

#### Travel Conditions

	Residential				Commercia <sup>-</sup>	Ī
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/8.25 to 7.15/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013 Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007. The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. Page 6

The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to The operational summer selection item changed from 4 to The home based work selection item changed from 8 to 7. 2 to 1. 4 to 3. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative B.urb

Project Name: Project Location: Alternative B

Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: May, 2006

Construction Duration: 15

Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres

Single Family Units: 0 Multi-Family Units: 132

Retail/Office/Institutional/Industrial Square Footage: 0

#### CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

PM10					PM10	PM10
Source EXHAUST DUST	ROG	NOX	со	so2	TOTAL	
*** 2006*** Phase 1 - Demolition Emission	s				0.00	
Fugitive Dust - 0.00			-		0.00	
Off-Road Diesel	0.00	0.00	0.00	<u></u>	0.00	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emissi	one					
Fugitive Dust - 30.00	- -		•		30.00	
Off-Road Diesel 5.27 0.00	18.64	127.87	148.05	<del></del>	5.27	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		Dama 7				

m +1 0

mud A

	. 7 .				
Worker Trips	0.18	ative B Ou 0.37	4.07	0.00	0.02
0.01 0.01 Maximum lbs/day	18.82	128.24	152.12	0.00	35.29
5.28 30.01					
Phase 3 - Building Constructi Bldg Const Off-Road Diesel 3.62 0.00	on 10.88	81.56	81.47	-	3.62
Bldg Const Worker Trips	0.31	0.19	3.95	0.00	0.07
0.0Ō 0.07 Arch Coatings Off-Gas	0.00	•••	-	<b></b>	<del>-</del>
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	<del></del>	
Asphalt Off-Road Diesel	0.00	0.00	0.00	***	0.00
0.00 0.00 Asphalt On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Maximum lbs/day 3.63 0.07	11.19	81.75	85.42	0.00	3.70
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29
*** 2007***					
*** 2007*** Phase 1 - Demolition Emission	IS,				0.00
Fugitive Dust - 0.00			-		0.00
Off-Road Diesel	0.00	0.00	0.00		0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi	ons				
Fugitive Dust - 0.00		_	-	<b></b>	0.00
Off-Road Diesel 0.00 0.00	0.00	0.00	0.00	_	0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Constructi Bldg Const Off-Road Diesel 3.30 0.00	on 10.88	78.23	83.69	-	3.30
Bldg Const Worker Trips	0.29	0.18	3.71	0.00	0.07
0.00 0.07 Arch Coatings Off-Gas	17.90		<b>540</b>	***	_
Arch Coatings Worker Trips 0.00 0.07	0.27	0.14	3.13	0.00	0.07
0.00		Dago 9			

	Altern	ative B Ou	tput		
Asphalt Off-Gas	0.28		· -		_
Asphalt Off-Road Diesel	5.25	31.62	44.62	444	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
0.04 0.00 Asphalt Worker Trips 0.00 0.01	0.02	0.01	0.26	0.00	0.01
Maximum lbs/day 4.43 0.15	34.96	111.74	135.15	0.00	4.58
Max lbs/day all phases 4.43 0.15	34.96	111.74	135.15	0.00	4.58

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Typė	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1.	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Sep '06
Phase 3 Duration: 11.0 months
Start Month/Year for SubPhase Building: Sep '06
SubPhase Building Duration: 10.2 months
Off-Road Equipment

vo.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07 SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months

Acres to be Paved: 1.9

Hours/Day
10.5
10.5
10.5

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AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmi	tigated)	
Source	ROG	NOX	СО	502	PM10
Natural Gas	0.08	1.00	0.42	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	6.46		-		
Architectural Coatings	0.15				-
TOTALS(lbs/day,unmitigated)	6.79	1.00	1.14	0.00	0.00

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# UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	SO2	PM10
	10.88	19.33	140.52	0.09	15.35
TOTAL EMISSIONS (lbs/day)	10.88	19.33	140.52	0.09	15.35

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	Units	Trips
Apartments low rise	12.20	7.15 trips/dwelling unit	132.00	943.80
		Sum of Total T Total Vehicle Miles Trav	rips eled :	943.80 LO,083.65

# Vehicle Assumptions:

# Fleet Mix:

Vehicle Type Light Auto Light Truck < 3,750 lb Light Truck 3,751- 5,750 Med Truck 5,751- 8,500 Lite-Heavy 8,501-10,000 Lite-Heavy 10,001-14,000 Med-Heavy 14,001-33,000 Heavy-Heavy 33,001-60,000 Line Haul > 60,000 lb	0 16.10 0 7.10 0 1.10 0 0.40 0 1.00 0 0.90	Non-Catalyst 1.80 3.30 1.90 1.40 0.00 0.00 0.00 0.00	Catalyst 97.80 94.00 96.90 95.80 81.80 50.00 20.00 11.10 0.00	Diesel 0.40 2.70 1.20 2.80 18.20 50.00 80.00 88.90 100.00
Line Haul > 60,000 lb	s 0.00	0.00 Page 10	0.00	100.00

Alternative B Output						
Urban Bus	0.10	0.00	0.00	100.00		
Motorcycle	1.70	82.40	17.60	0.00		
School Bus	0.10	0.00	0.00	100.00		
Motor Home	1.20	8.30	83.30	8.40		

Travel Conditions

	Residential			Commercial		
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/8.25 to 7.15/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007. The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative C.urb Project Name: A

Alternative C

Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES					D1410
PM10 PM10	200	Alo.		co2	PM10
*** 2006 *** EXHAUST DUST	ROG	NOX	со	S02	TOTAL
TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					PM10
PM10 PM10					
*** 2007 ***	ROG	NOX	СО	<b>S02</b>	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 4.43 0.19	38.88	111.80	136.48	0.00	4.62
AREA SOURCE EMISSION ESTIMATES	ROG	NOX	<b>CO</b>	502	PM10
TOTALS (lbs/day,unmitigated)	8.21	1.21	CO 1.23	0.00	0.00
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES				
, and a second control of the second control	ROG	NOx	co	so2	PM10
TOTALS (lbs/day,unmitigated)	12.82	22.78	165.57	0.10	18.09
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES			
TOTALS (lbs/day,unmitigated)	ROG 21.04	NOX 23.99	CO 166.80	SO2 0.10	PM10 18.09

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative C.urb

Project Name:

Project Name:

Alternative C

Project Location:

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: May, 2006 Construction Duration: 15 Total Land Use Area to be Developed: 12.2 acres Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 160 Retail/Office/Institutional/Industrial Square Footage: 0

# CONSTRUCTION EMISSION ESTIMATES UNMITTGATED (1bs/day)

CONSTRUCTION EMISSION ESTIMAT	ES UNMIT	IGATED (1bs	s/day)		PM10	PM10
PM10 Source EXHAUST DUST *** 2006***	ROG	NOx	со	S02	TOTAL	
Phase 1 - Demolition Emission Fugitive Dust	S	NA.	-	<del></del>	0.00	
- 0.00 Off-Road Diesel	0.00	0.00	0.00		0.00	
0.00 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00 Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emissic Fugitive Dust	ons -	-	<del></del>	<del></del>	30.00	
- 30.00 Off-Road Diesel	18.64	127.87	148.05	****	5.27	
5.27 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00 Worker Trips	0.18	0.37	4.07	0.00	0.02	
0.01 0.01 Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
Phase 3 - Building Construction	on					
Bldg Const Off-Road Diesel	10.88	81.56	81.47	-	3.62	
Bldg Const Worker Trips 0.00 0.09	0.38	0.23	4.79	0.00	0.09	
Arch Coatings Off-Gas	0.00	-	***		LLUS	
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Asphalt Off-Gas	0.00	-				
Asphalt Off-Road Diesel	0.00	0.00	0.00	<del></del>	0.00	
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 3.63 0.09	11.25	81.79	86.26	0.00	3.72	
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29	

*** 2007***					
Phase 1 - Demolition Emission	ons				0.00
Fugitive Dust - 0.00	<b></b>				0.00
Off-Road Diesel	0.00	0.00	0.00	<b>1.07</b>	0.00
0.00 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00				0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Phase 2 - Site Grading Emiss	sions				
Fugitive Dust	_	-	_		0.00
- 0.00 Off-Road Diesel	0.00	0.00	0.00	_	0.00
0.00 0.00					
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Maximum lbs/day	0.00	0.00	0.00	0.00	0.00
0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 Puilding Construct	-i an				
Phase 3 - Building Construct Bldg Const Off-Road Diesel	10.88	78.23	83.69		3.30
3.30 0.00		0.21		0.00	
Bldg Const Worker Trips 0.00 0.09	0.35	0.21	4.50	0.00	0.09
Arch Coatings Off-Gas	21.70	_	_		-
- Arch Coatings Worker Trips	0.33	0.17	3.80	0.00	0.09
0.00  0.09		0.17	3.00	0.00	0.03
Asphalt Off-Gas	0.28	-	_	-	_
Asphalt Off-Road Diesel	5.25	31.62	44.62		1.09
1.09 0.00 Asphalt On-Road Diesel	0.08	1.59	0.21	0.00	0.04
0.04 0.00	0.08	1.39	0.31	0.00	0.04
Asphalt Worker Trips	0.02	0.01	0.26	0.00	0.01
0.00 0.01 Maximum lbs/day	38.88	111.80	136.48	0.00	4.62
4.43 0.19				- <del>-</del> -	
Max lbs/day all phases	38.88	111.80	136.48	0.00	4.62
4.43 0.19				0.700	

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06

Alternative	e C Output		
Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment			
No. Type	Horsepower	Load Factor	Hours/Day
	84	0.730	10.5
1 Concrete/Industrial saws 2 Excavators 1 Rough Terrain Forklifts 1 Rubber Tired Dozers 1 Rubber Tired Loaders 1 Scrapers	180	0.580	10.5
1 Rough Terrain Forklifts	94	0.475	10.5
1 Rubber Tired Dozers	352 165	0.590	10.5
1 Rubber Tired Loaders	165 313	0.465 0.660	10.5 10.5
1 Scrapers	212	0.000	7.0.2
Phase 3 - Building Construction Assumptions	5		
Start Month/Year For Phase 3: Sep '06' Phase 3 Duration: 11.0 months			
Start Month/Year for SubPhase Building: S	Sen '06		
SubPhase Building Duration: 10.2 months	op oo		
Off-Road Equipment			
No. Type	Horsepower	Load Factor	Hours/Day
1 Concrete/Industrial saws 1 Cranes 2 Off Highway Tractors 1 Rough Terrain Forklifts	84	0.730	10.5
1 Cranes	190	0.430	10.5
2 Off Highway Tractors	255 94	0.410	10.5 10.5
1 Rough Ťerrain Forklifts 2 Tractor/Loaders/Backhoes	79	0.475 0.465	10.5
Start Month/Year for SubPhase Architectur			TO . 2
SubPhase Architectural Coatings Duration:	1.0 months	u. 07	
Start Month/Year for SubPhase Asphalt: Ju	17 '07		
SubPhase Asphalt Duration: 0.8 months			
Acres to be Paved: 1.9			
Off-Road Equipment			/-
No. Type	Horsepower	Load Factor	Hours/Day
1 Graders 1 Pavers 1 Rollers	174	0.575	10.5
1 Pavers 1 Rollers	132 114	0.590 0.430	10.5 10.5
T KOLIELS	***	0.730	TO • 3

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AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmit	igated)	
Source	ROG	NOX	CO	S02	PM10
Natural Gas	0.09	1.21	0.51	0	0.00
Hearth	0.05	0.88	0.38	0.01	0.07
Landscaping - No winter emiss	ions				
Consumer Prdcts	7.83		_	~	***
Architectural Coatings	0.18	-	-	_	
TOTALS(lbs/day,unmitigated)	8.15	2.09	0.89	0.01	0.07

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# UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOX	CO	S02	РМ10
Apartments low rise	16.19	27.32	194.96	0.10	18.09
		Page 4			

TOTAL EMISSIONS (1bs/day)

16.19

27.32

194.96

0.10

18.09

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	6.95 trips/dwelling unit	160.00	1,112.00
		Sum of Total Tr Total Vehicle Miles Trave	rips eled	1,112.00 11,880.72

#### Vehicle Assumptions:

#### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 1b:	5 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	0 16.10	1.90	96.90	1.20
Med Truck 5,751-8,500		1.40	95.80	2.80
Lite-Heavy 8,501-10,000	0 1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential				Commercia <sup>*</sup>	1
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/10. to 6.95/12.2

Changes made to the default values for Construction Page 5

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0.

The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100.

The landscape year changed from 2005 to 2007.

The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

# Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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# URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version

8.7\Projects2k2\Alternative C.urb

Project Name: Alternative C

Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

### DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: May, 2006

Construction Duration: 15

Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres

Single Family Units: 0 Multi-Family Units: 160

Retail/Office/Institutional/Industrial Square Footage: 0

#### CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

, d 0		- '			PM10	PM10
PM10 Source EXHAUST DUST	ROG	NOX	со	so2	TOTAL	
*** 2006***						
Phase 1 - Demolition Emissions Fugitive Dust	·	_	_	_	0.00	
- 0.00					0.00	
Off-Road Diesel	0.00	0.00	0.00		0.00	
0.00 0.00						
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00						

Worker Trips	Altern 0.00	ative C Ou 0.00	tput 0.00	0.00	0.00
0.00 0.00 Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi Fugitive Dust - 30.00	ions -	<del></del>	<del></del>	-	30.00
Off-Road Diesel 5.27 0.00	18.64	127.87	148.05	_	5.27
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.01 0.01	0.18	0.37	4.07	0.00	0.02
Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29
Phase 3 - Building Constructi Bldg Const Off-Road Diesel 3.62 0.00	ion 10.88	81.56	81.47		3.62
Bldg Const Worker Trips 0.00 0.09	0.38	0.23	4.79	0.00	0.09
Arch Coatings Off-Gas	0.00	_			
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	MAG		Name of the last o
Asphalt Off-Road Diesel	0.00	0.00	0.00		0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 3.63 0.09	11.25	81.79	86.26	0.00	3.72
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29
*** 2007***					
Phase 1 - Demolition Emission Fugitive Dust - 0.00	S <u></u>	-	Man-	-	0.00
Off-Road Diesel	0.00	0.00	0.00	_	0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi Fugitive Dust - 0.00	ons -				0.00
Off-Road Diesel	0.00	0.00	0.00	_	0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
0.00		Dams 7			

	Altern	ative C Ou	tput		
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construct	ion				
Bldg Const Off-Road Diesel	10.88	78.23	83.69	-	3.30
Bldg Const Worker Trips 0.00 0.09	0.35	0.21	4.50	0.00	0.09
Arch Coatings Off-Gas	21.70		-	-	_
Arch Coatings Worker Trips 0.00 0.09	0.33	0.17	3.80	0.00	0.09
Asphalt Off-Gas	0.28	_	and a		-
Asphalt Off-Road Diesel	5.25	31.62	44.62	<del>-</del>	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips 0.00 0.01	0.02	0.01	0.26	0.00	0.01
Maximum lbs/day 4.43 0.19	38.88	111.80	136.48	0.00	4.62
Max lbs/day all phases 4.43 0.19	38.88	111.80	136.48	0.00	4.62

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
. 1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Sep '06
Phase 3 Duration: 11.0 months
Start Month/Year for SubPhase Building: Sep '06
SubPhase Building Duration: 10.2 months
Off-Road Equipment

No.	Туре	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5
Start	Month/Year for SubPhase Architectura	l Coatings:	Jul '07	

SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months Acres to be Paved: 1.9 Off-Road Equipment

OTT-K	oad Equipment
No.	Type
1	c'un da un

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5

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AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmiti	gated)	
Source	ROG	NOX	CO	SO2	PM10
Natural Gas	0.09	1.21	0.51	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	7.83		-	•••	-
Architectural Coatings	0.18		-	-	
TOTALS(lbs/day,unmitigated)	8.21	1.21	1.23	0.00	0.00

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## UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	SO2	PM10
	12.82	22.78	165.57	0.10	18.09
TOTAL EMISSIONS (lbs/day)	12.82	22.78	165.57	0.10	18.09

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	6.95 trips/dwelling unit	160.00	1,112.00
		Sum of Total Tr Total Vehicle Miles Trave	rips eled	1,112.00 11,880.72

Vehicle Assumptions:

#### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	5 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	) 16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	) 1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	) 1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000		0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

Traver Condicions		Residential			Commercia	1
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/10. to 6.95/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007. The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. Page 10

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### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vista Village Cedar Grove Alt D.urb Project Name: Alternative D Vista Village Project Location: Mountain Counties and Rural Counties On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES			•				
					PM10		
PM10 PM10 *** 2006 *** EXHAUST DUST	ROG	NOX	со	so2	TOTAL		
TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29		
	·				PM10		
PM10 PM10 *** 2007 ***	ROG	NOx	CO	502	TOTAL		
EXHAUST DUST TOTALS (lbs/day,unmitigated) 4.43 0.09	26.57	111.61	132.30	0.00	4.52		
AREA SOURCE EMISSION ESTIMATES				_			
TOTALS (lbs/day,unmitigated)	ROG 3.76	NOX 0.55	0.95	502 0,00	РМ10 0.00		
OPERATIONAL (VEHICLE) EMISSION ESTIMATES							
·	ROG	NOX	со	<b>SO2</b>	PM10		
TOTALS (lbs/day,unmitigated)	6.67	11.87	86.30	0.05	9.43		
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES					
TOTALS (lbs/day,unmitigated)	ROG 10.42	NOX 12.42	CO 87.25	502 0.05	PM10 9.43		

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vista Village Cedar Grove Alt D.urb
Project Name: Alternative D Vista Village
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES					PM10
PM10 PM10					LMITO
*** 2006 ***	ROG	NOx	CO	so2	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
	P	age 1			

#### Alternative D 012407.txt

DM10 DM10					PM10					
PM10 PM10 *** 2007 ***	ROG	NOx	co	so2	TOTAL					
TOTALS (lbs/day,unmitigated) 4.43 0.09	26.57	111.61	132.30	0.00	4.52					
AREA SOURCE EMISSION ESTIMATES TOTALS (lbs/day,unmitigated)	ROG 3.67	NOX 0.94	CO 0.40	SO2 0.00	PM10 0.03					
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOX	со	so2	PM10					
TOTALS (lbs/day,unmitigated)	8.44	14.24	101.62	0.05	9.43					
SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES										
TOTALS (lbs/day,unmitigated)	ROG 12.11	NOX 15.18	CO 102.02	502 0.06	РМ10 9.46					

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vista Village Cedar Grove Alt D.urb
Project Name: Alternative D Vista Village
Project Location: Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: May, 2006 Construction Duration: 15 Total Land Use Area to be Developed: 12.2 acres

Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 72 Retail/Office/Institutional/Industrial Square Footage: 0

## CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

<del></del>					PM10	PM10
PM10				_		
Source	ROG	NOX	CO	SO2	TOTAL	EXHAUST
DUST						•
*** 2006***						
Phase 1 - Demolition Emissions	5				0.00	
Fugitive Dust	-		-		0.00	<del>-</del>
0.00			0.00			
Off-Road Diesel	0.00	0.00	0.00	····· .	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	6.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00						
nhara o odna osadina majani			,			
Phase 2 - Site Grading Emission	ons				20.00	
Fugitive Dust	-	-	No.	**	30.00	_
30.00	30 64	127 07	140.05		F 77	~ ~~
Off-Road Diesel	18.64	127.87	148.05	<b>300</b>	5.27	5.27
0.00		Dama 3				
		Page 2				

	On-Road Diesel	Alterna 0.00	tive D 012 0.00	2407.txt 0.00	0.00	0.00	0.00
	0.00 Worker Trips	0.18	0.37	4.07	0.00	0.02	0.01
	0.01 Maximum lbs/day 30.01	18.82	128.24	152.12	0.00	35.29	5.28
	Phase 3 - Building Construct Bldg Const Off-Road Diesel 0.00	ion 10.88	81.56	81.47		3.62	3.62
	Bldg Const Worker Trips	0.17	0.10	2.16	0.00	0.04	0.00
	0.04 Arch Coatings Off-Gas	0.00	-	***	-	-	_
	Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
	Asphalt Off-Gas	0.00	-	<u></u>	<del></del> .	-	-
	Asphalt Off-Road Diesel	0.00	0.00	0.00	nee-	0.00	0.00
	Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
	Asphalt Worker Trips 0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Maximum lbs/day 0.04	11.05	81.67	83.62	0.00	3.67	3.63
	Max lbs/day all phases 30.01	18.82	128.24	152.12	0.00	35.29	5,28
	*** 2007***  Phase 1 - Demolition Emissio  Fugitive Dust  0.00	ns -	-			0.00	-
	Off-Road Diesel	0.00	0.00	0.00	. ***	0.00	0.00
	0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
	0.00 Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
	0.00 Maximum lbs/day 0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Phase 2 - Site Grading Emiss Fugitive Dust 0.00	ions -	esse	-	<u></u>	0.00	
	Off-Road Diesel	0.00	0.00	0.00		0.00	0.00
	On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
	Worker Trips 0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Maximum lbs/day 0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Phase 3 - Building Construct Bldg Const Off-Road Diesel 0.00	ion 10.88	78.23	83.69	_	3.30	3.30
•	Bldg Const Worker Trips 0.04	0.16	0.10	2.03	0.00	0.04	0.00
	Arch Coatings Off-Gas	9.76	-	<del>~</del> ~	-	-	-
	Arch Coatings Worker Trips	0.15	0.08	1.71	0.00	0.04	0.00
	Asphalt Off-Gas	0.28	. –	No.		***	-
	Asphalt Off-Road Diesel	5.25	31.62	44.62	***	1.09	1.09
	Asphalt On-Road Diesel 0.00	0.08	1.59	0.31	0.00	0.04	0.04
	Asphalt Worker Trips 0.01	0.02	0.01	0.26	0.00	0.01	0.00
	Maximum lbs/day	26.57	111.61 Page 3	132.30	0.00	4.52	4.43

0.09

Max 1bs/day all phases 0.09	26.57	111.61	132.30	0.00	4.52	4.43

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Phase 1 -	Demolition	Assumptions:	Phase	Turned	OFF
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Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
ī	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Sep '06
Phase 3 Duration: 11.0 months
Start Month/Year for SubPhase Building: Sep '06
SubPhase Building Duration: 10.2 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
$\bar{1}$	Rough Terrain Forklifts	94	0.475	10.5
$\bar{2}$	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07
SubPhase Architectural Coatings Duration: 1.0 months
Start Month/Year for SubPhase Asphalt: Jul '07
SubPhase Asphalt Duration: 0.8 months
Acres to be Paved: 1.9
Off-Poad Equipment

OTT-KO	oad Equipment			
No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5
****	.10 / , 4 / 0	-		

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AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmi	tigated)	
Source	ROG	NOX	CO	S02	PM10
Natural Gas	0.04	0.54	0.23	0	0.00
Hearth	0.02	0.40	0.17	0.00	0.03
Landscaping - No winter emiss	ions				
Consumer Prdcts	3.52				•••
Architectural Coatings	0.08	•••	<b>***</b>		***
TOTALS(lbs/day,unmitigated)	3.67	0.94	0.40	0.00	0.03

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## Alternative D 012407.txt

#### UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise	ROG	NOX	CO	SO2	PM10
	8.44	14.24	101.62	0.05	9.43
TOTAL EMISSIONS (lbs/day)	8.44	14.24	101.62	0.05	9.43

Does not include correction for passby trips. Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	8.05 trips/dwelling unit	72.00	579.60
		Sum of Total Tr Total Vehicle Miles Trave	ips led	579.60 6.192.50

## Vehicle Assumptions:

#### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20 1	1.80	97.80	0.40
Light Truck < 3,750 lbs		3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500		1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000		0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	5 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

## Travel Conditions

	Residential			Commercial		
	Home-	Home-	Home-			
•	Work	Shop	Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/4.5 to 8.05/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013
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#### Alternative D 012407.txt

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0.

The wood fireplace percentage changed from 10 to 0.

The natural gas fireplace percentage changed from 55 to 100.

The landscape year changed from 2005 to 2007.

The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The home based work selection item changed from 8 to 7.
The home based shopping selection item changed from 8 to 7.
The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Vista Village Cedar Grove Alt D.urb Project Name:

Alternative D Vista Village
Project Location:

Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

#### DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: May, 2006 Construction Duration: 15 Total Land Use Area to be Developed: 12.2 acres Maximum Acreage Disturbed Per Day: 3 acres Single Family Units: 0 Multi-Family Units: 72 Retail/Office/Institutional/Industrial Square Footage: 0

#### CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

			,,		PM10	PM10
PM10						
Source	ROG	NOX	CO	S02	TOTAL	EXHAUST
DUST *** 2006***						
Phase 1 - Demolition Emission	25					
Fugitive Dust	15				0.00	
0.00			_	_	0.00	-
Off-Road Diesel	0.00	0.00	0.00	_	0.00	0.00
0.00	0.00	0.00	0.00		0.00	0,00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00						
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00						
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00						
Phase 2 Site Sunding Fuine	•					
Phase 2 - Site Grading Emiss	IONS				20.00	
Fugitive Dust 30.00	_	•		-	30.00	****
Off-Road Diesel	18.64	127.87	148.05	***	5.27	5.27
0.00	1.0.04	127.07	140.03		3.61	2.21
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00						0.00
Worker Trips	0.18	0.37	4.07	0.00	0.02	0.01
0.01						
Maximum lbs/day	18.82	128.24	152.12	0.00	35.29	5.28
•		Page 6				

50.01						
Phase 3 - Building Construct Bldg Const Off-Road Diesel	ion 10.88	81.56	81.47	Luc.	3.62	3.62
0.00 Bldg Const Worker Trips 0.04	0.17	0.10	2.16	0.00	0.04	0.00
Arch Coatings Off-Gas	0.00	-	-	-	**	***
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 Asphalt Off-Gas	0.00	***	1400	****	***	_
Asphalt Off-Road Diesel	0.00	0.00	0.00	***	0.00	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00 Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 Maximum lbs/day 0.04	11.05	81.67	83.62	0.00	3.67	3.63
Max lbs/day all phases 30.01	18.82	128.24	152.12	0.00	35.29	5.28
*** 2007***						
Phase 1 - Demolition Emission Fugitive Dust	ns -		uner	MA:	0.00	_
0.00 Off-Road Diesel	0.00	0.00	0.00	Many	0.00	0.00
011 110 day 0 1 0 0 0 1	0.00	0.00	0.00	0.00	0.00	0.00
0.00 Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 Maximum lbs/day 0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emiss	ions				0.00	
Fugitive Dust 0.00	0.00	- 0.00	0.00	<del></del>	0.00	0.00
Off-Road Diesel 0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-Road Diesel 0.00				0.00		0.00
Worker Trips 0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construct Bldg Const Off-Road Diesel	ion 10.88	78.23	83.69	***	3.30	3.30
0.00 Bldg Const Worker Trips	0.16	0.10	2.03	0.00	0.04	0.00
0.04 Arch Coatings Off-Gas	9.76	***	•	Monte	-	_
Arch Coatings Worker Trips	0.15	0.08	1.71	0.00	0.04	0.00
0.04 Asphalt Off-Gas	0.28	_		_	-	***
Asphalt Off-Road Diesel	5.25	31.62	44.62	_	1.09	1.09
0.00 Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04	0.04
0.00 Asphalt Worker Trips	0.02	0.01	0.26	0.00	0.01	0.00
0.01 Maximum lbs/day 0.09	26.57	111.61	132.30	0.00	4.52	4.43
Max 1bs/day all phases 0.09	26.57	111.61	132.30	0.00	4.52	4.43

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Phase 1 - Demolition Assumptions: Phase Tur	rned OFF		
Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment No. Type  1 Concrete/Industrial saws 2 Excavators 1 Rough Terrain Forklifts 1 Rubber Tired Dozers 1 Rubber Tired Loaders 1 Scrapers	Horsepower 84 180 94 352 165 313	Load Factor 0.730 0.580 0.475 0.590 0.465 0.660	Hours/Day 10.5 10.5 10.5 10.5 10.5
Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Sep '06 Phase 3 Duration: 11.0 months    Start Month/Year for SubPhase Building: Some SubPhase Building Duration: 10.2 months Off-Road Equipment    No. Type	Horsepower 84 190	0.730 0.430	Hours/Day 10.5 10.5
2 Off Highway Tractors 1 Rough Terrain Forklifts 2 Tractor/Loaders/Backhoes Start Month/Year for SubPhase Architectura SubPhase Architectural Coatings Duration: Start Month/Year for SubPhase Asphalt: Ju SubPhase Asphalt Duration: 0.8 months Acres to be Paved: 1.9 Off-Road Equipment	1.0 months	0.410 0.475 0.465 Jul '07	10.5 10.5 10.5
No. Type  1 Graders  1 Pavers  1 Rollers	Horsepower 174 132 114	Load Factor 0.575 0.590 0.430	Hours/Day 10.5 10.5 10.5

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AREA SOURCE EMISSION ESTIMATES					m. 10
Source	ROG	NOX	CO	SOZ	PM10
Natural Gas	0.04	0.54	0.23	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	3.52			_	····
Architectural Coatings	0.08	-	_	-	
TOTALS(lbs/day,unmitigated)	3.76	0.55	0.95	0.00	0.00

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Apartments low rise	ROG	NOX	CO	SO2	PM10
	6.67	11.87	86.30	0.05	9.43
TOTAL EMISSIONS (lbs/day)	6.67	11.87	86.30	0.05	9.43

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise	12.20	8.05 trips/dwelling unit	72.00	579.60
		Sum of Total Tr Total Vehicle Miles Trave	ips led	579.60 6,192.50

# Vehicle Assumptions:

#### Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck $< 3,750$ lb:	s 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	0 16.10	1.90	96.90	1.20
Med Truck 5,751-8,500		1.40	95.80	2.80
Lite-Heavy 8,501-10,000	0 1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	0 1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lb:	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

## Travel Conditions

	Residential			Commercial		
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customar
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/4.5 to 8.05/12.2

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013 Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. The wood fireplace percentage changed from 10 to 0. Page 9

# Alternative D 012407.txt The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007. The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

# Changes made to the default values for Operations

```
The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.
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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version

8.7\Projects2k2\Alternative E.urb

Project Name:

Project Name:

Alternative E

Project Location:

Mountain Counties and Rural Counties
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# SUMMARY REPORT (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES	;				PM10
PM10 PM10 *** 2006 ***	ROG	NOX	CO	502	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					PM10
PM10 PM10 *** 2007 ***	ROG	NOx	co	SO2	TOTAL
TOTALS (lbs/day,unmitigated) 4.43 0.19	37.76	111.79	136.10	0.00	4.62
AREA SOURCE EMISSION ESTIMATES					
TOTALS (lbs/day,unmitigated)	ROG 7.92	NOX 1.15	CO 1.93	so2 0.00	PM10 0.01
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOx	. <b>CO</b>	so2	PM10
TOTALS (lbs/day,unmitigated)	12.94	23.02	167.34	0.10	18.28
SUM OF AREA AND OPERATIONAL EMI	SSION ESTI	MATES			
TOTALS (lbs/day,unmitigated)	ROG 20.86	NOX 24.18	CO 169.26	SO2 0.10	РМ10 18.29

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#### URBEMIS 2002 For Windows 8.7.0

C:\Program Files\URBEMIS 2002 Version File Name:

8.7\Projects2k2\Alternative E.urb

Project Name: Alternative E

Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# SUMMARY REPORT (Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES					
PM10 PM10					PM10
*** 2006 ***	ROG	NOx	CO	S02	TOTAL
EXHAUST DUST TOTALS (lbs/day,unmitigated) 5.28 30.01	18.82	128.24	152.12	0.00	35.29
					D1410
PM10 PM10					PM10
*** 2007 *** EXHAUST DUST	ROG	NOX	CO	SO2	TOTAL
TOTALS (lbs/day,unmitigated) 4.43 0.19	37.76	111.79	136.10	0.00	4.62
AREA SOURCE EMISSION ESTIMATES					
TOTALS (lbs/day,unmitigated)	ROG 7.75	NOX 1.99	CO 0.85	SO2 0.01	PM10 0.07
OPERATIONAL (VEHICLE) EMISSION	ESTIMATES ROG	NOX	со	so2	PM10
TOTALS (lbs/day,unmitigated)	16.36	27.61	197.05	0.10	18.28
SUM OF AREA AND OPERATIONAL EMI	SSTON ESTI	MATES			
	ROG	NOX	СО	so2	PM10
TOTALS (lbs/day,unmitigated)	24.11	29.60	197.89	0.11	18.35

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# URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version 8.7\Projects2k2\Alternative E.urb
Project Name: Alternative E
Project Location: Mountain Counties and Rural Counties On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

# DETAIL REPORT (Pounds/Day - Winter)

Construction Start Month and Year: May, 2006
Construction Duration: 15
Total Land Use Area to be Developed: 12.2 acres
Maximum Acreage Disturbed Per Day: 3 acres
Single Family Units: 0 Multi-Family Units: 152
Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)
Page 2

A٦	ter	nat	iv	e E	Out	put
----	-----	-----	----	-----	-----	-----

DIATO			•		PM10	PM10
PM10 Source EXHAUST DUST	ROG	NOX	СО	so2	TOTAL	
*** 2006***						
Phase 1 - Demolition Emissio Fugitive Dust - 0.00	ns 	ww	-		0.00	
Off-Road Diesel	0.00	0.00	0.00	****	0.00	
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum Ibs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Phase 2 - Site Grading Emiss Fugitive Dust	ions _	<del></del>		****	30.00	
- 30.00 Off-Road Diesel	18.64	127.87	148.05		5.27	
5.27 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00 Worker Trips	0.18	0.37	4.07	0.00	0.02	
0.01 0.01 Maximum lbs/day	18.82	128.24		0.00	35.29	
5.28 30.01						
Phase 3 - Building Construct Bldg Const Off-Road Diesel	ion 10.88	81.56	81.47		3.62	
3.62 0.00 Bldg Const Worker Trips	0.36	0.22	4.55	0.00	0.09	
0.00 0.09 Arch Coatings Off-Gas	0.00	_	_		-	
Arch Coatings Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Asphalt Off-Gas	0.00	-2018		•••	-	
Asphalt Off-Road Diesel	0.00	0.00	0.00		0.00	
Asphalt On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Asphalt Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00	
Maximum lbs/day 3.63 0.09	11.23	81.78	86.02	0.00	3.72	
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29	
*** 2007***						
Phase 1 - Demolition Emission Fugitive Dust	ns -		<u></u>	<del></del>	0.00	
- 0.00 Off-Road Diesel	0.00	0.00	0.00		0.00	
0.00 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00 Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00 0.00						

	Altern	ative E Ou	tput		
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emiss	ions				
Fugitive Dust - 0.00		***	****	-	0.00
Off-Road Diesel	0.00	0.00	0.00		0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Construct	ion				
Bldg Const Off-Road Diesel 3.30 0.00	10.88	78.23	83.69	-	3.30
Bldg Const Worker Trips 0.00 0.09	0.33	0.20	4.28	0.00	0.09
Arch Coatings Off-Gas	20.61	No.	<u></u>	<del></del>	••
Arch Coatings Worker Trips 0.00 0.09	0.32	0.17	3.61	0.00	0.09
Asphalt Off-Gas	0.28	-		<u>-</u>	
Asphalt Off-Road Diesel	5.25	31.62	44.62	-	1.09
1.09	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips	0.02	0.01	0.26	0.00	0.01
0.00 0.01 Maximum lbs/day 4.43 0.19	37.76	111.79	136.10	0.00	4.62
Max lbs/day all phases 4.43 0.19	37.76	111.79	136.10	0.00	4.62

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 ~ Building Construction Assumptions Page 4

Alternative E Output
Start Month/Year for Phase 3: Sep '06
Phase 3 Duration: 11.0 months
Start Month/Year for Cubal Start Month/Year for SubPhase Building: Sep '06 SubPhase Building Duration: 10.2 months Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07 SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months Acres to be Paved: 1.9 Off-Road Equipment

OH-RO	ta Equipment			
No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	10.5
1	Pavers	132	0.590	10.5
1	Rollers	114	0.430	10.5

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AREA SOURCE EMISSION ESTIMATES	(Winter	Pounds per	Day, Unmiti	gated)	
Source	ROG	NOX	CO	SO2	PM10
Natural Gas	0.09	1.15	0.49	0	0.00
Hearth	0.05	0.84	0.36	0.01	0.07
Landscaping - No winter emiss	ions				
Consumer Prdcts	7.44	-			_
Architectural Coatings	0.17			-	-
TOTALS(lbs/day.unmitigated)	7.75	1.99	0.85	0.01	0.07

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# UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise Condo/townhouse general	ROG 10.92 5.44	NOX 18.43 9.19	CO 131.50 65.55	SO2 0.07 0.03	PM10 12.20 6.08
TOTAL EMISSIONS (lbs/day)	16.36	27.61	197.05	0.10	18.28

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

# Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise Condo/townhouse general	8.03 4.17	7.50 trips/dwelling unit 7.19 trips/dwelling unit	100.00 52.00	
		Sum of Total T Total Vehicle Miles Trav	rips eled	1,123.88 12,007.65

# Vehicle Assumptions:

## Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck $< 3,750$ lb.	s 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,75	0 16.10	1.90	96.90	1.20
Med Truck 5,751-8,50	0 7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,00	0 1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,00	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,00		0.00	20.00	80.00
Heavy-Heavy 33,001-60,00	0.90	0.00	11.10	88.90
Line Haul > 60,000 1b:	s 0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

#### Travel Conditions

Traver Condictors						
		Residential			Commercia	]
	Home-	Home-	Home-			
	Work	Shop	Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1		3210	

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/6.25 to 7.5/8.03
The Trip Rate and/or Acreage values for Condominium/townhouse general have changed from the defaults 6.9/3.25 to 7.19/4.17

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. Page 6

The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007.

The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

# Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.

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#### URBEMIS 2002 For Windows 8.7.0

File Name: C:\Program Files\URBEMIS 2002 Version

8.7\Projects2k2\Alternative E.urb

Alternative E

Project Name: Project Location: Mountain Counties and Rural Counties

On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

## DETAIL REPORT (Pounds/Day - Summer)

Construction Start Month and Year: May, 2006

Construction Start Month and rear. May, 2000
Construction Duration: 15
Total Land Use Area to be Developed: 12.2 acres
Maximum Acreage Disturbed Per Day: 3 acres
Single Family Units: 0 Multi-Family Units: 152
Retail/Office/Institutional/Industrial Square Footage: 0

# CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (1bs/day)

PM10					PMT0	PMT0
Source	ROG	NOX	co	so2	TOTAL	
EXHAUST DUST *** 2006***						
Phase 1 - Demolition Emissions						
Fugitive Dust		_	-		0.00	
- 0.00						
Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00 0.00						
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00 0.00						
Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00 0.00						
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	
0.00 0.00						
Phase 2 - Site Grading Emission	15					
Fugitive Dust	••••	-	***	-	30.00	
- 30.00						

Off-Road Diesel	Altern 18.64	ative E Ou 127.87	tput 148.05	-	5.27
5.27 0.00 On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Worker Trips	0.18	0.37	4.07	0.00	0.02
0.01 0.01 Maximum lbs/day 5.28 30.01	18.82	128.24	152.12	0.00	35.29
Phase 3 - Building Constructi Bldg Const Off-Road Diesel 3.62 0.00	on 10.88	81.56	81.47	<del></del>	3.62
Bldg Const Worker Trips 0.00 0.09	0.36	0.22	4.55	0.00	0.09
Arch Coatings Off-Gas	0.00	_		<del>~~</del>	mar.
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Asphalt Off-Gas	0.00	<del></del>		-	-
Asphalt Off-Road Diesel	0.00	0.00	0.00		0.00
0.00 0.00 Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Maximum lbs/day 3.63 0.09	11.23	81.78	86.02	0.00	3.72
Max lbs/day all phases 5.28 30.01	18.82	128.24	152.12	0.00	35.29
*** 2007***					
Phase 1 - Demolition Emission Fugitive Dust - 0.00	S -	-	<del></del>	-	0.00
Off-Road Diesel	0.00	0.00	0.00		0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00 Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissi	ons				0.00
Fugitive Dust - 0.00	0.00	0.00	0 00		0.00
Off-Road Diesel	0.00	0.00	0.00	0.00	0.00
On-Road Diesel 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day 0.00 0.00	0.00	0.00	0.00	0.00	0.00
Phase 3 - Building Constructi Bldg Const Off-Road Diesel 3.30 0.00	on 10.88	78.23	83.69	-	3.30
Bldg Const Worker Trips 0.00 0.09	0.33	0.20	4.28	0.00	0.09
V.VV V.VJ		Pane 8			

Augh a chi acc a		ative E Ou	itput		
Arch Coatings Off-Gas	20.61	Market Market	مد		
Arch Coatings Worker Trips 0.00 0.09	0.32	0.17	3.61	0.00	0.09
Asphalt Off-Gas	0.28	-	-	_	-
Asphalt Off-Road Diesel	5.25	31.62	44.62	_	1.09
Asphalt On-Road Diesel	0.08	1.59	0.31	0.00	0.04
Asphalt Worker Trips 0.00 0.01	0.02	0.01	0.26	0.00	0.01
Maximum lbs/day 4.43 0.19	37.76	111.79	136.10	0.00	4.62
Max lbs/day all phases 4.43 0.19	37.76	111.79	136.10	0.00	4.62

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions Start Month/Year for Phase 2: May '06 Phase 2 Duration: 4.0 months On-Road Truck Travel (VMT): 0 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
2	Excavators	180	0.580	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
1	Rubber Tired Dozers	352	0.590	10.5
1	Rubber Tired Loaders	165	0.465	10.5
1	Scrapers	313	0.660	10.5

Phase 3 - Building Construction Assumptions Start Month/Year for Phase 3: Sep '06 Phase 3 Duration: 11.0 months Start Month/Year for SubPhase Building: Sep '06 SubPhase Building Duration: 10.2 months

Off-Road Equipment

NO.	Туре	Horsepower	Load Factor	Hours/Day
1	Concrete/Industrial saws	84	0.730	10.5
1	Cranes	190	0.430	10.5
2	Off Highway Tractors	255	0.410	10.5
1	Rough Terrain Forklifts	94	0.475	10.5
2	Tractor/Loaders/Backhoes	79	0.465	10.5

Start Month/Year for SubPhase Architectural Coatings: Jul '07

SubPhase Architectural Coatings Duration: 1.0 months Start Month/Year for SubPhase Asphalt: Jul '07 SubPhase Asphalt Duration: 0.8 months

Acres to be Paved: 1.9

Off-Road Equipment

No. Type Load Factor 0.575 Hours/Day 10.5 Horsepower Graders 174 1 Pavers 132 0.590 10.5

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AREA SOURCE EMISSION ESTIMATES	(Summer	Pounds per	Day, Unmi	tigated)	
Source	ROG	NOX	CO	SO2	PM10
Natural Gas	0.09	1.15	0.49	0	0.00
Hearth - No summer emissions					
Landscaping	0.22	0.01	1.44	0.00	0.00
Consumer Prdcts	7.44	•••			
Architectural Coatings	0.17	-		-	••••
TOTALS(lbs/day,unmitigated)	7.92	1.15	1.93	0.00	0.01

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# UNMITIGATED OPERATIONAL EMISSIONS

Apartments low rise Condo/townhouse general	ROG 8.64 4.31	NOX 15.36 7.66	CO 111.67 55.67	SO2 0.07 0.03	PM10 12.20 6.08
TOTAL EMISSIONS (7bs/day)	12.94	23.02	167.34	0.10	18.28

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 60 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Apartments low rise Condo/townhouse general	8.03 4.17	7.50 trips/dwelling unit 7.19 trips/dwelling unit	100.00 52.00	
		Sum of Total T Total Vehicle Miles Trav	rips eled	1,123.88 12,007.65

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
	lbs 15.10	3.30	94.00	2.70
Light Truck 3,751- 5,	750 16.10	1.90	96.90	1.20

		Alt	ernative E Outp	ut	
Med Truck	5,751- 8,50	0 7.10	1.40	95.80	2.80
Lite-Heavy	8,501-10,00	0 1.10	0.00	81.80	18.20
Lite-Heavy	10,001-14,00	0.40	0.00	50.00	50.00
Med-Heavy *	14,001-33,00	0 1.00	0.00	20.00	80.00
Heavy-Heavy	33,001-60,00	0.90	0.00	11.10	88.90
Line Haul >	60,000 1b	s 0.00	0.00	0.00	100.00
Urban Bus		0.10	0.00	0.00	100.00
Motorcycle		1.70	82.40	17.60	0.00
School Bus		0.10	0.00	0.00	100.00
Motor Home		1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/6.25 to 7.5/8.03

The Trip Rate and/or Acreage values for Condominium/townhouse general have changed from the defaults 6.9/3.25 to 7.19/4.17

Changes made to the default values for Construction

The user has overridden the Default Phase Lengths
Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0013
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0013

Changes made to the default values for Area

The wood stove percentage changed from 35 to 0. The wood fireplace percentage changed from 10 to 0. The natural gas fireplace percentage changed from 55 to 100. The landscape year changed from 2005 to 2007. The residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013. The nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0013.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007. The operational winter selection item changed from 2 to 1. The operational summer selection item changed from 4 to 3. The home based work selection item changed from 8 to 7. The home based shopping selection item changed from 8 to 7. The home based other selection item changed from 8 to 7. The commercial based commute selection item changed from 8 to 7. The commercial based non-work selection item changed from 8 to 7. The commercial based customer selection item changed from 8 to 7.